CLAIMS

1.   A system for reproduction of images (1), comprising:

- at least one input for the simultaneous reception of respective image signals, these image signals corresponding to different images and comprising pixel signals

- a screen (2) presenting a plurality of pixels with variable optical transmissibility

- at least one light source (71-77) for each image signal, projecting light on the screen (2), each source being associated with a set of pixels

- a channeling device (4, 6) for the light from each light source exclusively towards the associated group of pixels

- a sequential lighting control for said light sources

- a device for driving the transmissibility of the screen's pixels, applying the pixel signals on the screen in order to multiplex the display on the screen of different corresponding images, synchronizing screen display of one image corresponding to one of the image signals with the lighting of the source associated with this image signal, and driving the pixels for displaying each image on the screen's respective set of pixels

- a Fresnel lens (3) positioned on the path of the light traversing the screen (2)

- the Fresnel lens (3), the screen (2) and the light sources (71-77) being laid-out so that the images transmitted are focused towards the distinct respective areas of the screen's visualization environment.

2.   A system according to Claim 1, wherein it comprises an alignment grid (4) interposed between the sources and the screen, transmitting the light generated by each source exclusively towards its associated set of pixels.

3.   A system according to Claim 1, wherein the channeling device is constituted by light deflectors (6), such as prisms or mirrors, directing the light coming from a source exclusively towards its associated set of pixels.

4.   A system according to Claim 3, wherein the light deflectors are constituted by lenses (6) focusing the light coming from a source exclusively towards its associated set of pixels.

5.   A system according to Claim 3, wherein the light deflectors are reflectors.

6.   A system according to any one of the preceding Claims, wherein the light sources (71-77) are adjacent.

7.   A system according to Claim 6, wherein the light sources are slightly separated and the system includes diffusers positioned on the light path between the sources and the screen.

8. A system according to any one of the preceding Claims, wherein it comprises multiple respective image signal generators, signals corresponding to respective images of a single object according to the different points of view, the generators being connected to the signals' reception input.

9. A system according to Claim 8, wherein the generators are constituted by a processor generating said image signals from a modeled object.

10. A system according to Claim 8, wherein the generators are constituted by a processor generating said image signals by processing a single image of the object.

11. A set of systems wherein it comprises multiple systems according to any one of the preceding Claims, placed side by side and wherein the same screen is common to these systems.

12. A method for reproduction of images, comprising the steps consisting of:

- simultaneously receiving multiple image signals corresponding to different images and comprising pixel signals;

- sequentially generating a light signal for each image signal by a light source specific to it, these light signals being synchronized with the screen display of an image corresponding to the respective image signals

- projecting the light signals onto a display screen (2), channeling each light signal generated exclusively towards a set of screen pixels associated with this signal

- applying the pixel signals on the screen to multiplex the display of different images on the screen modifying the transmissibility of the screen's pixels, the display of images by the screen being spatially multiplexed

- focusing the images displayed towards the distinct respective areas of the screen's visualization environment.

13. A method according to Claim 12, wherein the image signals received correspond to the respective images of a single object according to the different points of view.